

Figure 1 Plasmid pCMV.Bx08.gp160

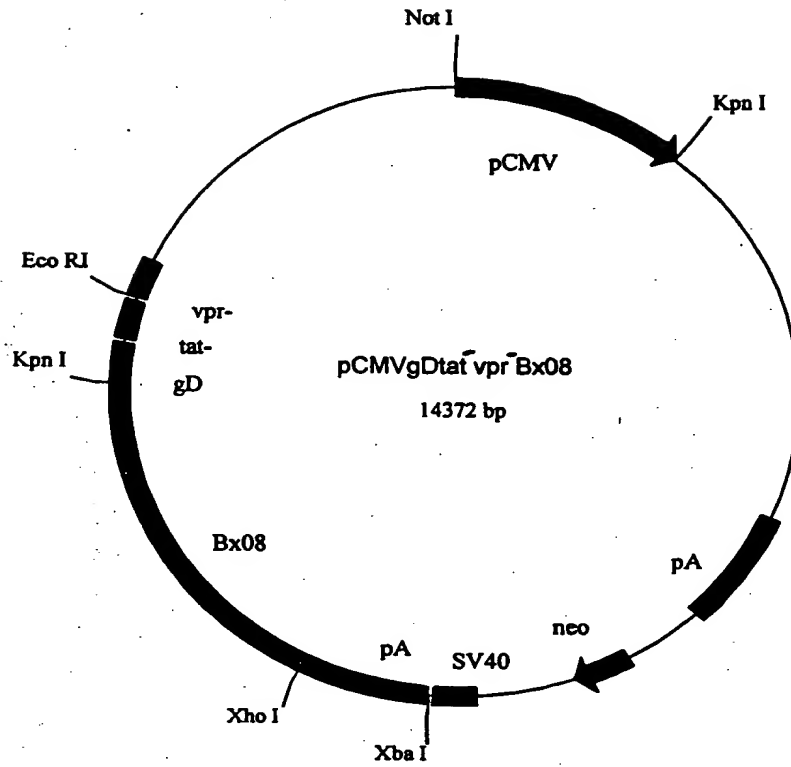


Figure 2 DNA immunization plasmid pCMV3Bx08.

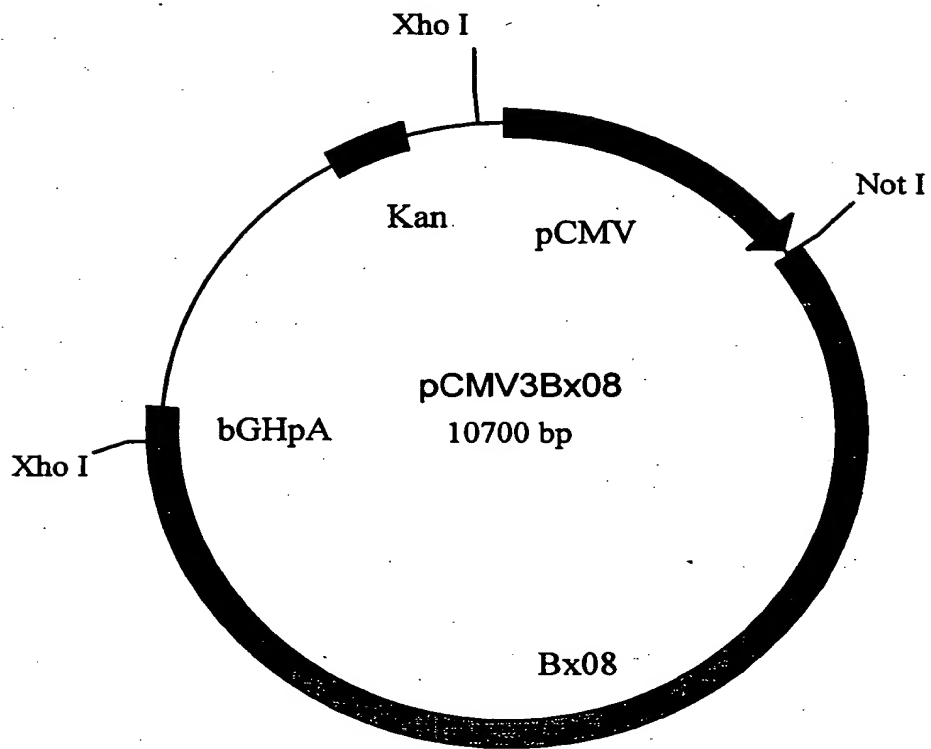
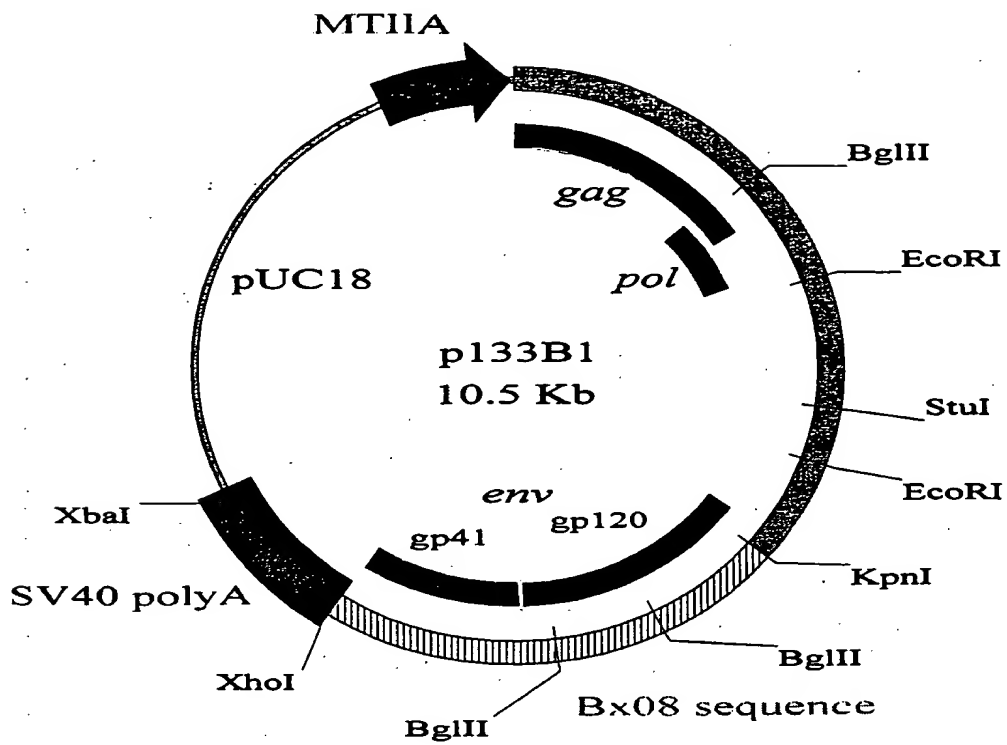


Figure 3. Pseudovirion Expression Plasmid p133B1 HIV-1 Bx08

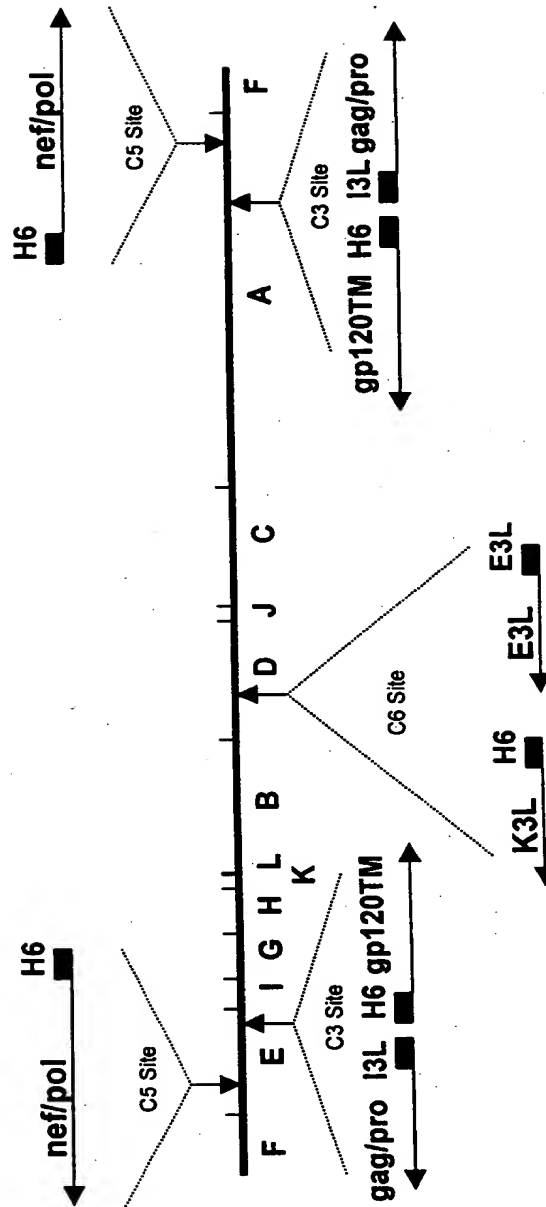


**FIGURE 4**

**ALVAC(2)120(BX08)GNP**

**(vCP1579)**

(ALVAC XhoI Restriction Map)



# Figure 1: Time line of PMc-vaccine 1

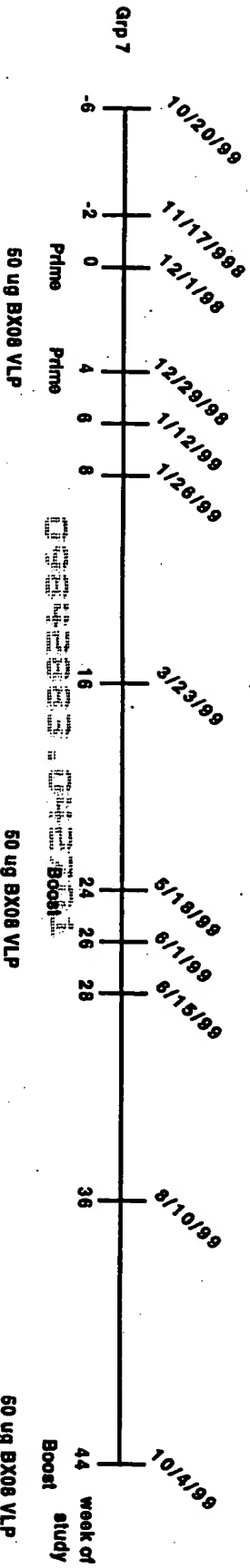
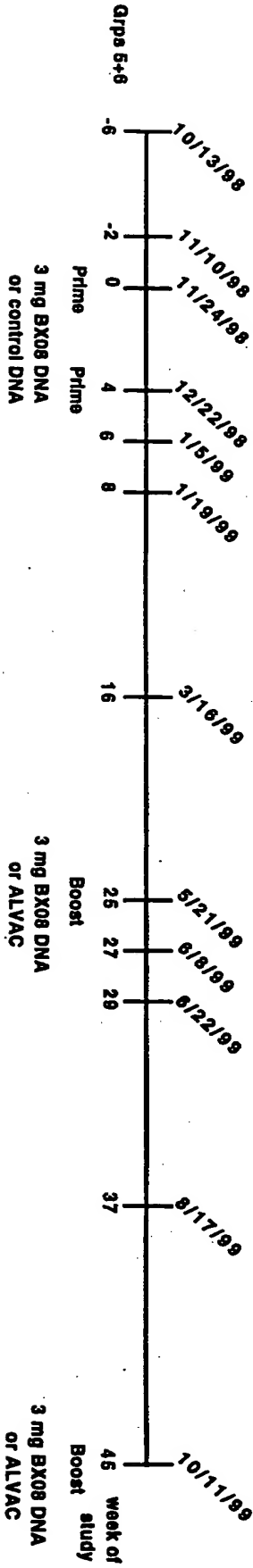
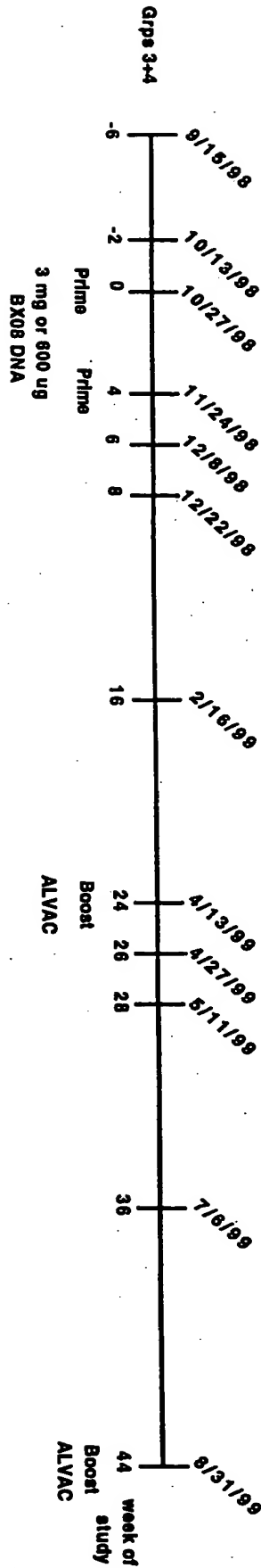
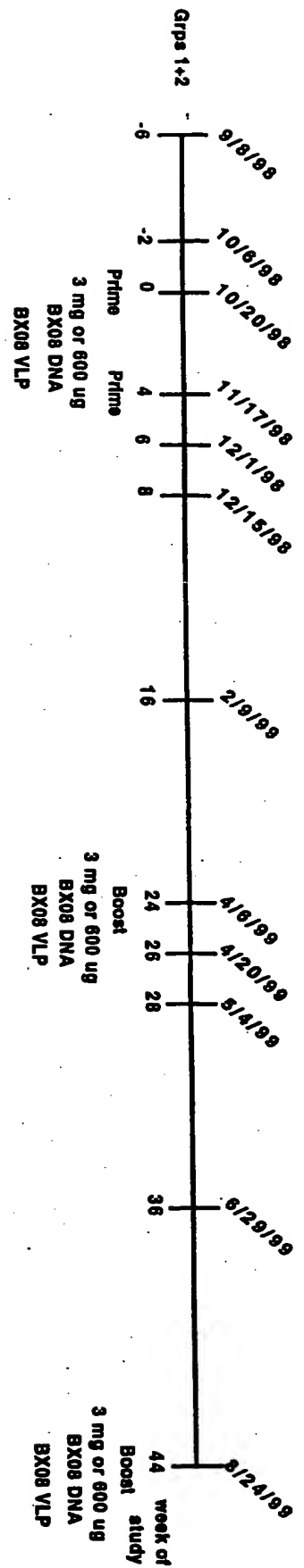
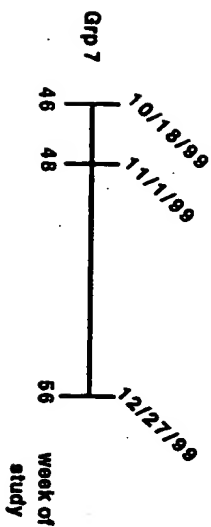
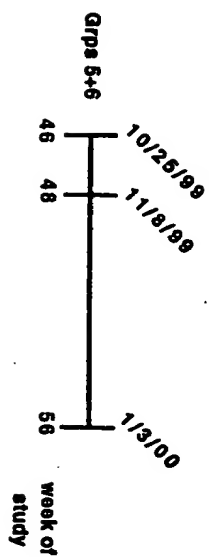
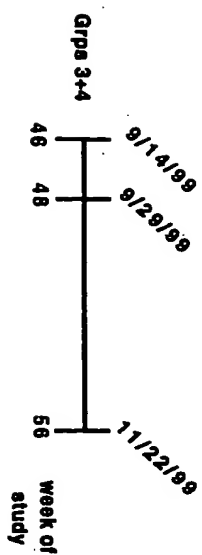
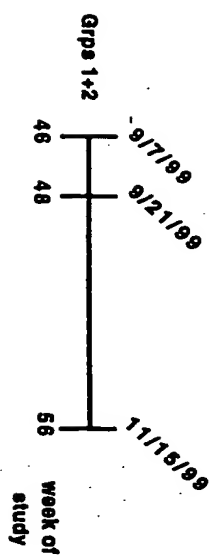


Figure 6 continued



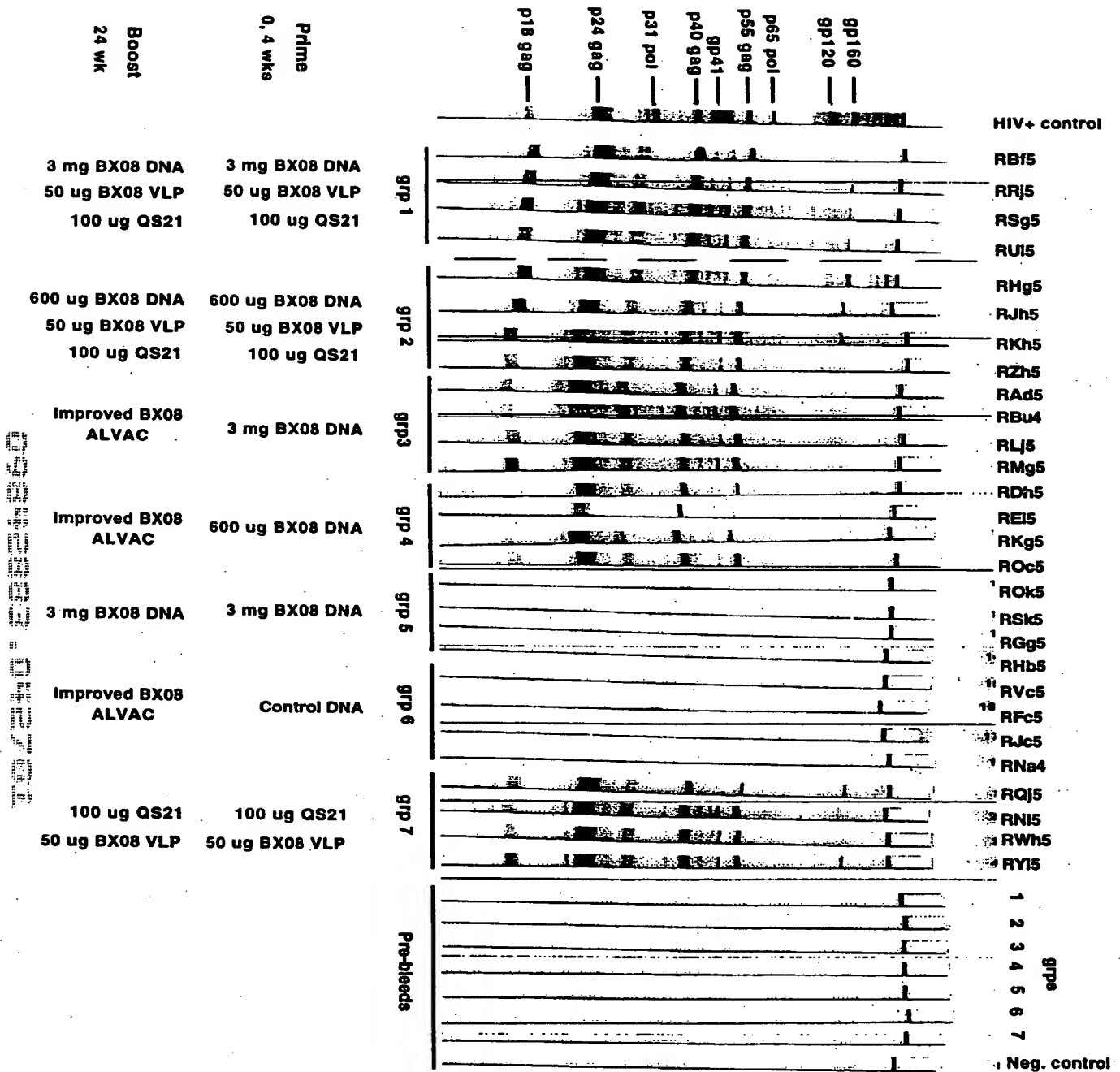
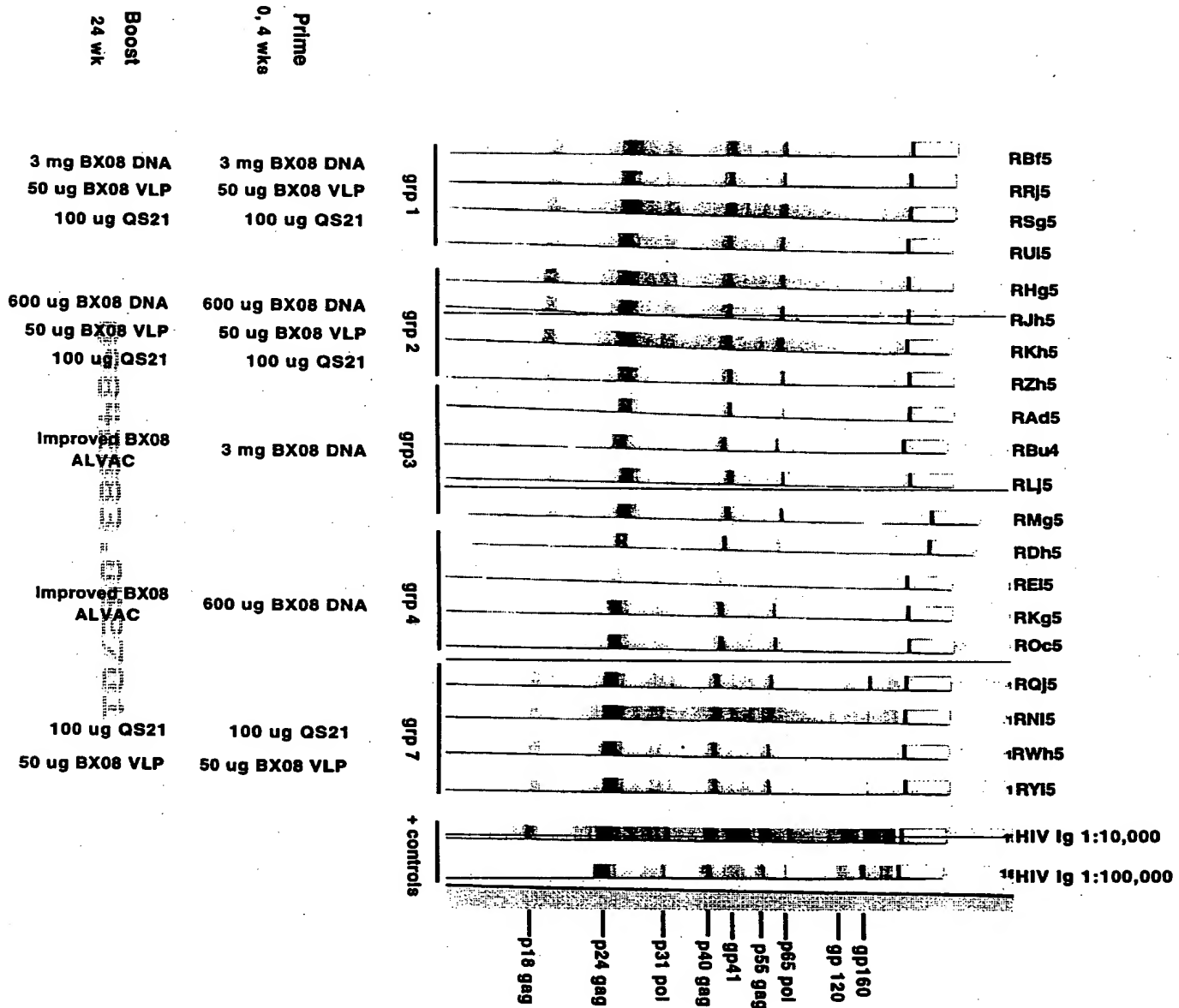


Figure 2. 26 wk macaque immunoreactivity to HIV antigens (1:100 diln)

647

Figure 3: 26 wk macaque serum immunoreactivity to HIV antigens (1:1000 diln)

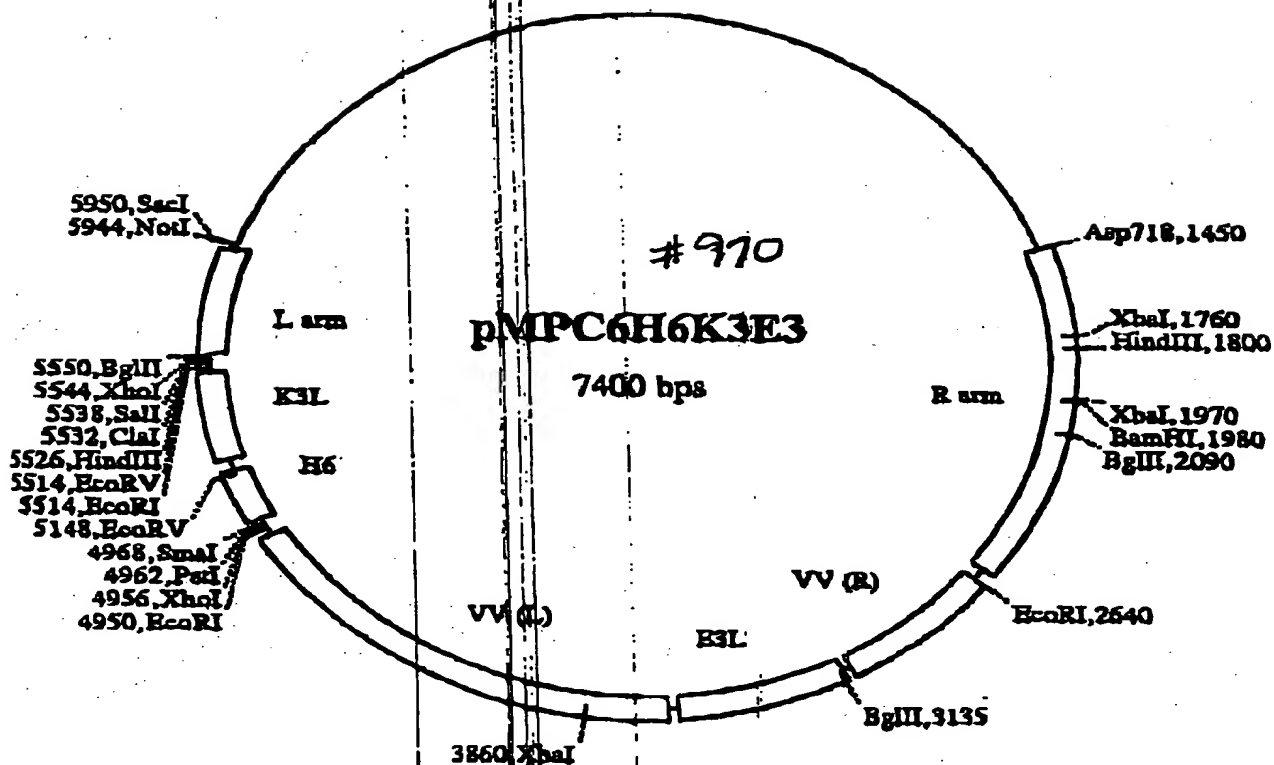




9/15

2-14-POX R

Fig 8



10/15

2-110-HIV

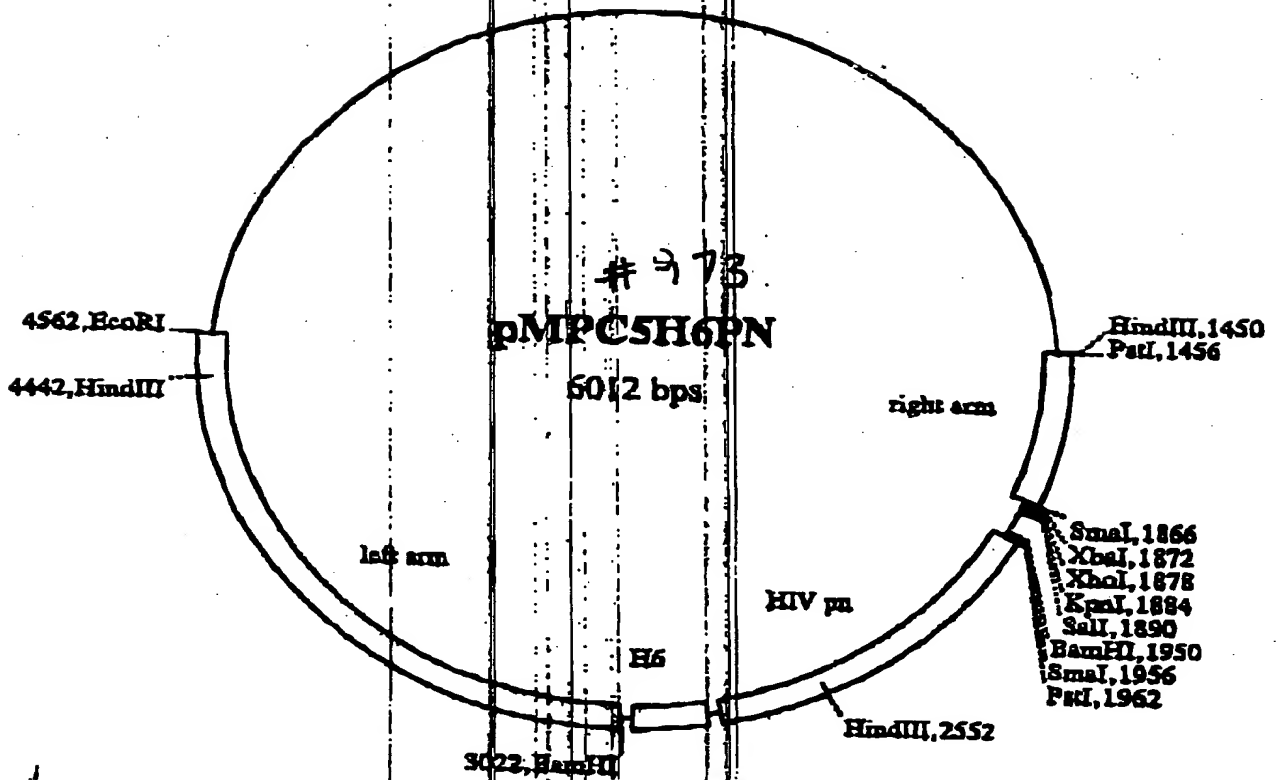


Figure 10 Plasmid pHIV76

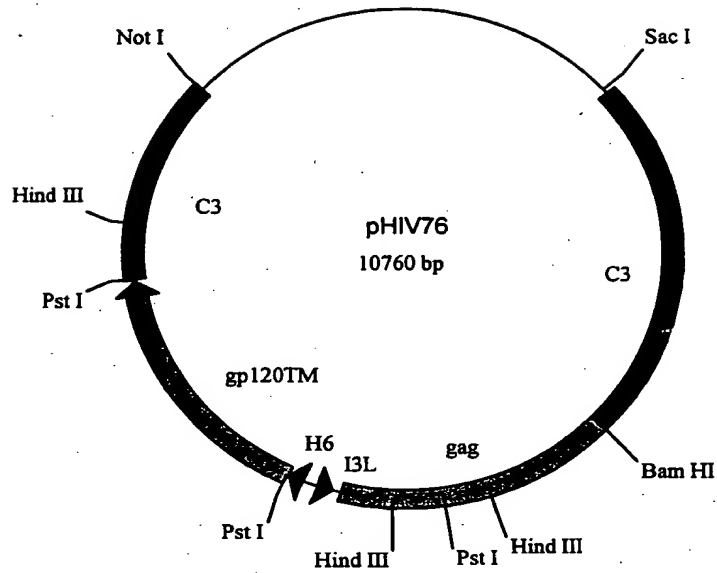


Figure 11

vCP1579: H6/HIV Pol/Nef epitope cassette in ALVAC C5 site

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61 GTCATAAAAA CCCGGGATCG ATTCTAGACT CGAGGGTACC GGATCTTAAT TAATTAGTCA
121 TCAGGCAGGG CGAGAACGAG ACTATCTGCT CGTTAATTAA TTAGGTCGAC GGATCCCCCA
181 ACAAAAACTA ATCAGCTATC GGGGTTAATT AATTAGTTAT TAGACAAGGT GAAAACGAAA
241 CTATTTGTAG CTTAATTAAT TAGAGCTTCT TTATTCTATA CTTAAAAAGT GAAAATAAAT
301 ACAAAGGTTT TTTAGGGTTG TGTAAATTG AAAGCGAGAA ATAATCATAA ATTATTTTCAT
361 TATCGCGATA TCCGTTAAGT TTGTATCGTA ATGCCACTAA CAGAAGAAGC AGAGCTAGAA
421 CTGGCAGAAA ACAGAGAGAT TCTAAAAGAA CCAGTACATG GAGTGTATTA TGACCCATCA
481 AAAGACTTAA TAGCAGAAAT ACAGAAGCAG GGGCAAGGCC AATGGACATA TCAAATTTAT
541 CAAGAGCCAT TTAAAAATCT GAAAACAGGA ATGGAGTGGA GATTTGATTC TAGATTAGCA
601 TTTCATCACG TAGCTAGAGA ATTACATCCT GAATATTTTA AAAATTGTAT GGCAATATTC
661 CAAAGTAGCA TGACAAAAAT CTTAGAGCCT TTTAGAAAAC AAAATCCAGA CATAGTTATC
721 TATCAATACA TGGATGATTT GTATGTAGGA TCTGACTTAG AAATAGGGCA GCATAGAACA
781 AAAATAGAGG AGCTGAGACA ACATCTGTTG AGGTGGGGAC TTACAACCAT GGTAGGTTTT
841 CCAGTAACAC CTCAAGTACC TTTAAGACCA ATGACTTACA AAGCAGCTGT AGATCTTTCT
901 CACTTTTTTA AAGAAAAAGG AGGTTTAGAA GGGCTAATTC ATTCTCAACG AAGACAAGAT
961 ATTCTTGATT TGTGGATTTA TCATACACAA GGATATTTTC CTGATTGGCA GAATTACACA
1021 CCAGGACCAG GAGTCAGATA CCCATTAACC TTTGGTTGGT GCTACAAGCT AGTACCAATG
1081 ATTGAGACTG TACCAGTAAA ATTAAAGCCA GGAATGGATG GCCCAAAGT TAAACAATGG
1141 CCATTGACAG AAGAAAAAAT AAAAGCATTG GTAGAAATTT GTACAGAGAT GGAAAAGGAA
1201 GGGAAAATTT CAAAATTGG GCCTTAATTT TTCTGCAGCC CGGGGGATCC TTTTATAGC
1261 TAATTAGTCA CGTACCTTTG AGAGTACCAC TTCAGCTACC TCTTTTGTGT CTCAGAGTAA
1321 CTTTCTTTAA TCAATTCCAA AACAG

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Upstream (right) flanking sequence: 1-266

VV H6 promoter: 267-390

HIV pol/nef/pol/nef/pol cassette: 391-1227

Downstream (left) flanking sequence: 1227-1345

Figure 12

## E3L and K3L genes in C6

```

      10      20      30      40      50      60      70      80      90      100     110
      .      .      .      .      .      .      .      .      .      .      .
GAGCTCGCGG CCGCCTATCA AAAGTCTTAA TGAGTTAGGT GTAGATAGTA TAGATATTAC TACAAGGTA TTCATATTTC CTATCAATTG TAAAGTAGAT GATATTAATA
CTCGAGCGCC GCGCGATAGT TTTCAGAATT ACTCAATCCA CATCTATCAT ATCTATAATG ATGTTTCCAT AAGTATAAAG GATAGTTAAG ATTTTCATCTA CTATAATTAT

      120     130     140     150     160     170     180     190     200     210     220
      .      .      .      .      .      .      .      .      .      .      .
ACTCAAAGAT GATGATAGTA GATAATAGAT ACGCTCATAT AATGACTGCA AATTGGGACG GTTCACATTT TAATCATCAC GCGTTCATAA GTTTCACCTG CATAGATCAA
TGAGTTTCTA CTACTATCAT CTATTATCTA TCGGAGTATA TTAAGTACGT TTAACCTGCG CAAGGTGAAA ATTAGTAGTG CGCAAGTATT CAAAGTTGAC GTATCTAGTT

      230     240     250     260     270     280     290     300     310     320     330
      .      .      .      .      .      .      .      .      .      .      .
AATCTCACTA AAAAGATAGC CGATGTATTT GAGAGAGATT GGACATCTAA CTACGCTAAA GAAATTACAG TTATAAATAA TACATAATGG ATTTTGTATT CATCAGTTAT
TTAGAGTGAT TTTTCTATCG GCTACATAAA CTCTCTCTAA CCTGTAGATT GATGCGATTT CTTTAATGTC AATATTTTATT ATGTATTACC TAAAACAATA GTAGTCAATA

      340     350     360     370     380     390     400     410     420     430     440
      .      .      .      .      .      .      .      .      .      .      .
ATTAAACATA AGTACAATAA AAAGTATTAA ATAAAAATAC TTACTTACGA AAAAATGACT AATTAGCTAT AAAAACCCAG ATCTCTCGAG GTGACGCGTA TOGATAAGCT
TAAATGTAT TCATGTATT TTTTCATAAT TATTTTTATG AATGAATGCT TTTTACTGTA TTAATGATA TTTTGGGTC TAGAGAGCTC CAGCTGCCAT AGCTATTGCA

      450     460     470     480     490     500     510     520     530
      .      .      .      .      .      .      .      .      .
TGATATCGAA TTCATAAAAA TT A TTG ATG TCT ACA CAT CCT TTT GTA ATT GAC ATC ATA TCC TTT TGT ATA ATC AAC TCT AAT CAC TTT
ACTATAGCTT AAGTATTTTT AA T AAC TAC AGA TGT GTA GGA AAA CAT TAA CTG TAG ATA TAT AGG AAA ACA TAT TAG TTG AGA TTA GTG AAA
      <Q H R C M R K Y N V D I Y G K T Y D V R I V K
-----K3L-----

      540     550     560     570     580     590     600     610     620
      .      .      .      .      .      .      .      .      .
AAC TTT TAC AGT TTT CCC TAC CAG TTT ATC CCT ATA TTC AAC ATA TCT ATC CAT ATG CAT CTT AAC ACT CTC TGC CAA GAT AGC TTC AGA
TTG AAA ATG TCA AAA GGG ATG GTC AAA TAG GGA TAT AAG TTG TAT AGA TAG GTA TAC GTA GAA TTG TGA GAG ACG GTT CTA TCG AAG TCT
      <V K V T K G V L K D R Y E V Y R D M H M K V S E A L I A E S
-----K3L-----

      630     640     650     660     670     680     690     700     710
      .      .      .      .      .      .      .      .      .
GTG AGG ATA GTC AAA AAG ATA AAT GTA TAG AGC ATA ATC CTT CTC GTA TAC TCT GCC CTT TAT TAC ATC GCC CGC ATT GGG CAA CGA ATA
CAC TCC TAT CAG TTT TTC TAT TTA CAT ATC TCG TAT TAG GAA GAG CAT ATG AGA CGG GAA ATA ATG TAG CGG GCG TAA CCC GTT GCT TAT
      <H P Y D F I Y L A Y D K E Y V R G K I V D G A N P L S Y
-----K3L-----

      720     730     740     750     760     770     780     790     800     810
      .      .      .      .      .      .      .      .      .      .
ACA AAA TGC AAG CAT ACG ATACAACTT AACGGATATC GCGATAATGA AATAATTAT GATTATTCTT CGCTTTCAAT TTAACACAAC CCTCAAGAAC
TGT TTT ACG TTC GTA TGC TATGTTGAA TTGCGTATAG CGCTATTACT TTATTAATAA CTAATAAAGA GCGAAAGTTA AATTGTGTTG GGAGTTCTTG
      <C F A L M
-----K3L-----

      820     830     840     850     860     870     880     890     900     910     920
      .      .      .      .      .      .      .      .      .      .      .
CTTTGTATTT ATTTCACCTT TTAAAGTATA GAATAAAGAA AGCTCTAATT AATTAATGAA CAGATTGTTT CGTTTTCCTT TTGGCGTATC ACTAATTAAT TAACCGGGGC
GAAACATAAA TAAAGTGAA AAATTCATAT CTTATTCTCT TCGAGATTAA TTAATTACTT GTCTAACAAA GCAAAAGGGG AACCGCATAG TGATTAATTA ATTGGGCCCC

      930     940     950     960     970     980     990     1000    1010    1020    1030
      .      .      .      .      .      .      .      .      .      .      .
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ACGTCGAGCT CCTTAAGTTG ATATAGCTGT ATAAAGTAAA CATATGTGTA TTGTAATGTA TTGCATCTTA CATATCTTTC TCTACATTGC CCTTGTCCCA AACAACTAAG

      1040    1050    1060    1070    1080    1090    1100    1110    1120    1130    1140
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GCAAACTATT CTAATACATA ATTCTTCTGT TAATACGTCT TGCACGTAAT CTATTATAGA TGCCAAGATA TCTATATAAT TATTTTGTA GATGATGTTA ACTATGTGAT
CGTTTGATAA GATTATGTAT TAAGAAGACA ATTATGCAGA ACGTGCATTA GATAATATCT ACGGTTCTAT AGATATATTA ATAAAACATT CTACTACAAT TGATACACTA

      1150    1160    1170    1180    1190    1200    1210    1220    1230    1240    1250
      .      .      .      .      .      .      .      .      .      .      .
CTATATAAGT AGTGTAAATA TTCAATGATT TCGATATATG TTCCAACCTCT GTCTTTTGTA TGTCTAGTTT CGTAATATCT ATAGCATCCT CAAAAAATAT ATTCCGATAT
GATATATTCA TCACATTATT AAGTACATAA AGCTATATAC AAGGTTGAGA CAGAAACACT ACAGATCAAA GCATTATAGA TATCGTAGGA GTTTTTTATA TAAGCGTATA

      1260    1270    1280    1290    1300    1310    1320    1330    1340    1350    1360
      .      .      .      .      .      .      .      .      .      .      .
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TAAGGGTTCA GAAGTCAAGA TAGAAGATT TTTAGAAGTT GCATACCTTA TATTATTAGA TAAATGGAG AAGACTATAG TAATTACTAT ATCAAAAACCT GTGATAGAAG

      1370    1380    1390    1400    1410    1420    1430    1440    1450    1460    1470
      .      .      .      .      .      .      .      .      .      .      .
TGTCATTTGA TTCTTATCTA CTATATCTAA GAAACGGATA GCGTCCCTAG GACGAACACT TGCCATTAAT ATCTCTATTA TAGCTTCTGG ACATAATTCA TCTATTATAC
ACAGTTAACT AAGAATAAGT GATATAGATT CTTTGCCTAT CGCAGGATC CTGCTTGATG ACGGTAATTA TAGAGATAAT ATCGAAGACC TGTATTAAAGT AGATAATATG

      1480    1490    1500    1510    1520    1530    1540    1550    1560    1570    1580
      .      .      .      .      .      .      .      .      .      .      .
CAGAATTAAT GGAACATATT CGGTATCTAT CTAACATAGT TTTAAGAAAG TCAGAACTCA AGACCTGATG TTCTATATAT GTTTCATACA TGAATGATC TCTATTGATG
GTCTTAATTA CCTTGTATAA GGCATAGATA GATTGTATCA AAATCTTCTC AGTCTTAGAT TCTGGACTAC AAGTATATAA CCAAGTATGT ACTTTACTAG AGATAACTAC

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 TATCACTGAT AAAGTAAGAG ACTTTTAAAC ATTGAGTAAG ATATATACGA AAGGAACAAC TACTTCCTAT CTATATGAG TTATCTTAAA CATGGTGTGT TGACAAGAGA

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1920 1930 1940 1950 1960 1970 1980 1990 2000 2010 2020  
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 -----E3L-----

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 -----E3L-----

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 <A D K W D I I K K A F I V D D F S K H D E R M S K E R S V D  
 -----E3L-----

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 -----E3L-----

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 <G E I G I N K I A A C V I E A D S R E D I Y I K S M  
 -----E3L-----

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3000 3010 3020 3030 3040 3050 3060 3070 3080 3090 3100  
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3440 3450 3460 3470 3480 3490 3500 3510 3520 3530 3540  
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3660 3670 3680 3690 3700 3710 3720 3730 3740 3750 3760  
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3770 3780 3790 3800 3810 3820 3830 3840 3850 3860 3870  
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GACAATATAC ATAGTTGTTA TGTCCGTCTA GATACCAATA CCAATTTGTG ACATTCGCC TCGTCGTAAG ATACCATGGA CCGGATACAA ATTATCGGTC TAGTAAATG

3880 3890 3900 3910 3920 3930 3940 3950 3960 3970 3980  
TCTATAAACA TTTTACCACA AATAATAGGA TCCTCTAGAT ATTTAATATT ATATCTAACA ACAACAAAAA AATTTAACGA TGTATGGCCA GAAGTATTTT CTACTAATAA  
AGATATTTGT AAAATGGTGT TTATTATCCT AGGAGATCTA TAAATTATAA TATAGATTGT TGTGTGTTTT TTAATTTGCT ACATACCGGT CTTCTATAAA GATGATTATT

3990 4000 4010 4020 4030 4040 4050 4060 4070 4080 4090  
AGATAAAGAT AGTCTATCTT ATCTACAAGA TATGAAAGAA GATAATCATT TAGTAGTAGC TACTAATATG GAAAGAAATG TATACAAAAA CGTGGAAAGCT TTTATATTAA  
TCTATTCTTA TCAGATAGAA TAGATGTTCT ATACTTTCTT CTATTAGTAA ATCATCATCG ATGATTATAC CTTTCTTTAC ATATGTTTTT GCACCTTCGA AAATATAATT

4100 4110 4120 4130 4140 4150 4160 4170 4180 4190 4200  
ATAGCATATT ACTAGAAGAT TTAATATCTA GACTTAGTAT AACAAAAACG TTAATGCGCA ATATCGATTC TATATTTCAT CATAACAGTA GTACATTAAT CAGTGATATA  
TATCGTATAA TGATCTTCTA AATTTTAGAT CTGAATCATA TTGTTTTGTC AATTTACGGT TATAGCTAAG ATATAAAGTA GTATTGTCTAT CATGTAATTA GTCACTATAT

4210 4220 4230 4240 4250 4260 4270 4280 4290 4300 4310  
CTGAAACGAT CTACAGACTC AACTATGCAA GGAATAAGCA ATATGCCAAT TATGTCTAAT ATTTTAACTT TAGAACTAAA ACCTTCTACC AATACTAAAA ATAGGATACG  
GACTTTGCTA GATGTCTGAG TTGATACGTT CCTTATTGCT TATACGGTTA ATACAGATTA TAAATTTGAA ATCTTGATTT TGCAAGATGG TTATGATTTT TATCCTATGC

4320 4330 4340 4350 4360 4370 4380 4390 4400 4410 4420  
TGATAGGCTG TTAAGAGCTG CAATAAATAG TAAGGATGTA GAAGAAATAC TTTGTTCTAT ACCTTCCGAG GAAAGAACTT TAGAACAACT TAAGTTTAAAT CAAACTTGTA  
ACTATCCGAC AATTTTCGAC GTTATTATC ATTCTACAT CTCTTTTATG AAACAAGATA TGGAAAGCTC CTTTCTTGAA ATCTTGTTGA ATTCAAATTA GTTTGAACAT

4430  
TTTATGAAGG TACC  
AAATACTTCC ATGG